



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Blue Ridge Regional Office

www.deq.virginia.gov

L. Preston Bryant, Jr.
Secretary of Natural Resources

David K. Paylor
Director

Steven A. Dietrich
Regional Director

Lynchburg Office
7705 Timberlake Road
Lynchburg, Virginia 24502
(434) 582-5120
Fax (434) 582-5125

January 23, 2009

Roanoke Office
3019 Peters Creek Road
Roanoke, Virginia 24019
(540) 562-6700
Fax (540) 562-6725

Mr. James "J.J." G. Keith II, Plant Administrator
Ferrum Water and Sewer Authority
Box 40
Ferrum, VA 24088

**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

Re: VPDES Permit VA0029254 - Ferrum STP

Dear Mr. Keith:

The VPDES permit for the above referenced facility is enclosed. A Discharge Monitoring Report (DMR) form is included with the permit. Please make additional copies of the DMR for future use. The first DMR for monthly monitored parameters is due by **March 10, 2009** for monitoring in **February 2009**. If you still have DMR data to report as required by the previous permit please submit it as an attachment to the first DMR required by this permit. Monitoring results on the DMRs should be reported to the same number of significant digits as are included in the permit limit for the parameter. Please send DMRs to: Virginia DEQ – Blue Ridge Regional Office - Roanoke, 3019 Peters Creek Rd., Roanoke, VA 24019-2738.

DEQ has launched an e-DMR program that allows you to submit the effluent data electronically. If you are interested in participating in this program please visit the following website for details: <http://www.deq.virginia.gov/water/edmrfaq.html>

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have thirty days from the date of service (the date you actually received this decision or the date it was mailed to you, whichever occurred first) within which to appeal this decision by filing a notice of appeal in accordance with the Rules of the Supreme Court of Virginia with the Director, Department of Environmental Quality. In the event that this decision is served on you by mail, three days are added to that period.

Alternatively, any owner under 9 VAC 25-230-130.B [formerly §§ 62.1 - 44.16, 62.1 - 44.17, and 62.1 - 44.19] of the State Water Control Law aggrieved by any action of the State Water Control Board taken without a formal hearing, or by inaction of the Board, may demand in writing a formal hearing of such owner's grievance, provided a petition requesting such hearing is filed with the Board. Said petition must meet the requirements set forth in §1.23(b) of the

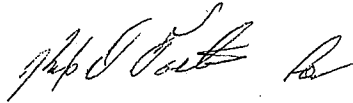
Mr. James "J.J." G. Keith II, Plant Administrator

Page 2 of 2

Board's Procedural Rule No. 1. In cases involving actions of the Board, such petition must be filed within thirty days after notice of such action is mailed to such owner by certified mail.

If you have additional questions, please do not hesitate to contact Susan Edwards at (540)562-6764 or at skedwards@deq.virginia.gov.

Sincerely,



Steven A. Dietrich, P.E.
Regional Director

Enclosure: Permit and Fact Sheet No. VA0029254 & DMR

cc: DEQ – OWPP (electronically)
EPA, Region III - 3WP12 (electronically)
VDH Danville

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM(NPDES)
DISCHARGE MONITORING REPORT(DMR)

PERMITTEE NAME/ADDRESS(INCLUDE
FACILITY NAME/LOCATION IF DIFFERENT)

NAME Ferrum Town - Sewage Treatment Plant
ADDRESS PO Box 40
Ferrum VA 24088

FACILITY
LOCATION 330 Old Ferrum Road

Municipal Minor 01/21/2009

DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)

Blue Ridge Regional Office
3019 Peters Creek Road

Roanoke VA 24019

NOTE: READ PERMIT AND GENERAL INSTRUCTIONS
BEFORE COMPLETING THIS FORM.

VA0029254		001	
PERMIT NUMBER		DISCHARGE NUMBER	
MONITORING PERIOD			
YEAR	MO	DAY	TO

FROM

PARAMETER	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM			
001 FLOW	REPORTD			*****	*****	*****			
	REQRMNT	0.40	NL	*****	*****	*****		CONT	REC
002 PH	REPORTD	*****			*****				
	REQRMNT	*****		6.0	*****	9.0		1/DAY	GRAB
003 BOD5	REPORTD			*****					
	REQRMNT	14,200	G/D	*****	9.3	14.0		3D/W	8HC
004 TSS	REPORTD			*****					
	REQRMNT	45,400	G/D	*****	30	45		3D/W	8HC
007 DO	REPORTD	*****		*****	*****	*****			
	REQRMNT	*****		6.0	*****	*****		1/DAY	GRAB
157 CL2, TOTAL CONTACT	REPORTD	*****		*****	*****	*****			
	REQRMNT	*****		1.0	*****	*****	9	3/DAY	GRAB
165 CL2, INST RES MAX	REPORTD	*****		*****					
	REQRMNT	*****		*****	3.3	6.6		1/DAY	GRAB
185 NICKEL, TOTAL RECOVERABLE	REPORTD			*****					
	REQRMNT	*****		*****	8.36	8.36		1/M	GRAB

ADDITIONAL PERMIT REQUIREMENTS OR COMMENTS

BYPASSES AND OVERFLOWS	TOTAL OCCURRENCES	TOTAL FLOW(M.G.)	TOTAL BOD5(K.G.)	OPERATOR IN RESPONSIBLE CHARGE			DATE					
				TYPED OR PRINTED NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO.	DAY			
				PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT								
				TYPED OR PRINTED NAME	SIGNATURE	TELEPHONE	YEAR	MO.	DAY			

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS TO THE BEST OF MY KNOWLEDGE AND BELIEF TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS. SEE 18 U.S.C. & 1001 AND 33 U.S.C. & 1319. (Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years.)

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM(NPDES)
DISCHARGE MONITORING REPORT(DMR)

Municipal Minor 01/21/2009
DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)
Blue Ridge Regional Office
3019 Peters Creek Road
Roanoke VA 24019

NOTE: READ PERMIT AND GENERAL INSTRUCTIONS
BEFORE COMPLETING THIS FORM.

VA0029254	001				
PERMIT NUMBER	DISCHARGE NUMBER				
MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
TO			FROM		

NAME Ferrum Town - Sewage Treatment Plant
ADDRESS PO Box 40
Ferrum VA 24088
FACILITY LOCATION 330 Old Ferrum Road

PARAMETER	QUANTITY OR LOADING		QUALITY OR CONCENTRATION			NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	UNITS		
196 ZINC, TOTAL RECOVERABLE	REPORTD	*****		*****				
	REQRMNT	*****		*****	50.3	UG/L	1/M	GRAB
203 COPPER, TOTAL RECOVERABLE	REPORTD	*****		*****				
	REQRMNT	*****		*****	12.8	UG/L	1/M	GRAB
213 CL2, INST TECH MIN LIMIT	REPORTD	*****		*****				
	REQRMNT	*****		*****	0.6	MG/L	3/DAY	GRAB
352 AMMONIA, AS N JAN-MAY	REPORTD	*****		*****				
	REQRMNT	*****		*****	3.2	MG/L	1/M	8HC
353 AMMONIA, AS N JUN-DEC	REPORTD	*****		*****				
	REQRMNT	*****		*****	1.6	MG/L	1/M	8HC
846 E. COLI, > 1 SAMPLE/MONTH	REPORTD	*****		*****				
	REQRMNT	*****		*****	126	N/CML	2/M	GRAB
	REPORTD							
	REQRMNT						*****	
	REPORTD							
	REQRMNT						*****	

ADDITIONAL PERMIT REQUIREMENTS OR COMMENTS

BYPASSES AND OVERFLOWS		TOTAL OCCURRENCES	TOTAL FLOW(M.G.)	TOTAL BOD5(K.G.)	OPERATOR IN RESPONSIBLE CHARGE		DATE				
I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS TO THE BEST OF MY KNOWLEDGE AND BELIEF TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS. SEE 18 U.S.C. & 1001 AND 33 U.S.C. & 1319. (Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years.)					TYPED OR PRINTED NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO.	DAY	
					PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT						TELEPHONE
					TYPED OR PRINTED NAME	SIGNATURE		YEAR	MO.	DAY	

THIS REPORT IS REQUIRED BY LAW (33 U. S. C. § 1318 40 CFR 122.41(i)(4)(i)). FAILURE TO REPORT OR FAILURE TO REPORT TRUTHFULLY CAN RESULT IN CIVIL PENALTIES NOT TO EXCEED \$10,000 PER DAY OF VIOLATION: OR IN CRIMINAL PENALTIES NOT TO EXCEED \$25,000 PER DAY OF VIOLATION OR BY IMPRISONMENT FOR NOT MORE THAN FIVE YEARS, OR BOTH.

GENERAL INSTRUCTIONS

1. Complete this form in permanent ink or indelible pencil.
2. Be sure to enter the dates for the first and last day of the period covered by the report on the form in the space marked "Monitoring Period".
3. For those parameters where the "permit requirement" spaces are blank or a limitation appears, provide data in the "reported" spaces in accordance with your permit.
4. Enter the average and, if appropriate, maximum quantities and units in the "reported" spaces in the columns marked "Quantity or Loading".
 $\text{KG/DAY} = \text{Concentration}(\text{mg/l}) \times \text{Flow}(\text{MGD}) \times 3.785$.
5. Enter maximum, minimum, and/or average concentrations and units in the "reported" spaces in the columns marked "Quality or Concentration".
6. Enter the number of samples which do not comply with the maximum and/or minimum permit requirements in the "reported" space in the column marked "No. Ex.".
7. Enter the actual frequency of analysis for each parameter (number of times per day, week, month) in the "reported" space in the column marked "Frequency of Analysis".
8. Enter the actual type of sample collected for each parameter in the "reported" space in the column marked "Sample Type".
9. Enter additional required data or comments in the space marked "additional permit requirements or comments".
10. Record the number of bypasses during the month, the total flow in million gallons and BOD5 in kilograms in the proper columns in the section marked "Bypasses and Overflows".
11. The operator in responsible charge of the facility should review the form and sign in the space provided. If the plant is required to have a licensed operator, the operator's certificate number should be reported in the space provided.
12. The principal executive officer should then review the form and sign in the space provided and provide a telephone number where he/she can be reached.
13. You are required to sample at the frequency and type indicated in your permit.
14. Send the completed form to your Dept. of Environmental Quality Regional Office by the 10th of each month.
15. You are required to retain a copy of the report for your records.
16. Where violations of permit requirements are reported, attach a brief explanation in accordance with the permit requirements describing causes and corrective actions taken. Reference each violation by date.
17. If you have any questions, contact the Dept. of Environmental Quality Regional Office.



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Permit No. **VA0029254**

Effective Date: January 26, 2009

Expiration Date: January 25, 2014

AUTHORIZATION TO DISCHARGE UNDER THE VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM AND THE VIRGINIA STATE WATER CONTROL LAW

In compliance with the provisions of the Clean Water Act as amended and pursuant to the State Water Control Law and regulations adopted pursuant thereto, the following owner is authorized to discharge in accordance with the information submitted with the permit application, and with this permit cover page, and Parts I and II of this permit, as set forth herein.

Owner: **Ferrum Water and Sewer Authority**

Facility Name: **Ferrum STP**

County: **Franklin County**

Facility Location: 330 Old Ferrum Road, Ferrum, Virginia

The owner is authorized to discharge to the following receiving stream:

Stream: Storey Creek

River Basin: Roanoke River

River Subbasin: Yadkin River

Section: 6a

Class: III, Non-tidal Piedmont Waters

Special Standards: none

A handwritten signature in cursive script, appearing to read "Steven A. Dietrich".

Steven A. Dietrich, P.E., Regional Director

A handwritten date in cursive script, appearing to read "22 January 2009".

Date

A. Limitations and Monitoring Requirements - Ferrum STP

1. During the period beginning with the effective date of the permit and lasting until the permit's expiration date the permittee is authorized to discharge from outfall serial number 001.

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS

DISCHARGE LIMITATIONS

MONITORING REQUIREMENTS

	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Minimum</u>	<u>Maximum</u>	<u>Frequency</u>	<u>Sample Type</u>
Flow (MGD) ^a	NL	NA	NA	NL	Continuous	TIRE
pH (standard units)	NA	NA	6.0	9.0	1/day	Grab
BOD ₅ ^{b & e}	9.3 mg/L	14.0 mg/L	NA	NA	3-days/week	8 HC
Total Suspended Solids (TSS) ^{b & e}	30 mg/L	45 mg/L	NA	NA	3-days/week	8 HC
Dissolved Oxygen (DO)	NA	NA	6.0 mg/L	NA	1/day	Grab
Total Residual Chlorine ^{b & c}	3.3 µg/L	6.6 µg/L	NA	NA	3/day at 4 hour intervals	Grab
Total Recoverable Copper ^b	12.8 µg/L	12.8 µg/L	NA	NA	1/month	Grab
Total Recoverable Nickel ^b	8.36 µg/L	8.36 µg/L	NA	NA	1/month	Grab
Total Recoverable Zinc ^b	50.3 µg/L	50.3 µg/L	NA	NA	1/month	Grab
Ammonia as N - Winter ^b (January - May)	3.2 mg/L	3.2 mg/L	NA	NA	1/month	8 HC
Ammonia as N - Summer ^b (June - December)	1.6 mg/L	1.6 mg/L	NA	NA	1/month	8 HC
E. coli (n/100 ml) ^d	126	NA	NA	NA	2/month	Grab

NL = No limitation, monitoring required NA = Not applicable TIRE = Totalizing, Indicating & Recording 1/day = once a day
3-day/week = one sample three times a week 8 HC = composite collected over 8 hours 1/month = once a month 2/month = twice a month
mg/L = milligrams per liter g/day = grams per day µg/l = micrograms per liter

a. The design flow of this treatment facility is 0.40 MGD.

b. See Part I.C.8 Compliance Reporting requirements.

c. See Part I.B for additional TRC limitations and monitoring requirements.

d. E. coli sampling shall be collected between the hours of 10 a.m. and 4 p.m., twice per month taken at least 7 days apart. Calculate the monthly average as a geometric mean of the results.

e. There shall be no discharge of floating solids or visible foam in other than trace amounts.

f. At least 85% removal for BOD₅ and TSS must be attained for this effluent.

B. Additional Total Residual Chlorine (TRC) Limitations and Monitoring Requirements

In addition to final effluent TRC requirements [DMR code #165], the following conditions shall apply:

1. The permittee shall monitor the TRC at the outlet of each operating chlorine contact tank **3 times per day at 4 hour intervals** by grab sample.
2. No more than 9 of all samples taken at the outlet of the chlorine contact tank shall be less than **1.0 mg/L** for any one calendar month [DMR code # 157].
3. No TRC sample taken at the outlet of the chlorine contact tank shall be less than **0.6 mg/L** [DMR code # 213].
4. If dechlorination facilities exist the samples above shall be collected prior to dechlorination.

If chlorine disinfection is not used, bacteria shall be limited and monitored by the permittee as specified - E. coli per 100 ml of water shall not exceed the following as a grab sample taken once/week that there is a discharge between 10 a.m. and 4 p.m.:

	<u>Geometric mean</u>	<u>Single Sample Maximum</u>
E. coli (N/100 ml)	126	235

C. Other Requirements or Special Conditions

1. **95% Capacity Reopener** - A written notice and a plan of action for ensuring continued compliance with the terms of this permit shall be submitted to the Blue Ridge Regional Office - Roanoke when the monthly average flow influent to the sewage treatment plant reaches 95 percent of the design capacity authorized in this permit for each month of any three consecutive month period. The written notice shall be submitted **within 30 days** and the plan of action shall be received at the Blue Ridge Regional Office - Roanoke no later than **90 days** from the third consecutive month for which the flow reached 95 percent of the design capacity. The plan shall include the necessary steps and a prompt schedule of implementation for controlling any current or reasonably anticipated problem resulting from high influent flows. Failure to submit an adequate plan in a timely manner shall be deemed a violation of this permit.
2. **Indirect Dischargers** - The permittee shall provide adequate notice to the Department of the following:
 - a. Any new introduction of pollutants into the treatment works from an indirect discharger which would be subject to Section 301 or 306 of Clean Water Act and the State Water Control Law if it were directly discharging those pollutants; and
 - b. Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works at the time of issuance of this permit.

Adequate notice shall include information on (i) the quality and quantity of effluent introduced into the treatment works, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the treatment works.
3. **CTC, CTO Requirement** - The permittee shall, in accordance with the DEQ Sewage Collection and Treatment Regulation (9VAC 25-790), obtain a Certificate to Construct (CTC), and a Certificate to Operate (CTO) from the DEQ prior to constructing wastewater treatment works and operating the treatment works, respectively. Non-compliance with the CTC or CTO shall be deemed a violation of the permit.
4. **Operation and Maintenance Manual Requirement** - The permittee shall review the existing Operations and Maintenance (O & M) Manual and notify the DEQ Regional Office in writing **within 90 days** of the effective date of this permit (**April 26, 2009**) whether it is still accurate and complete. If the O & M Manual is no longer accurate and complete, a revised O & M Manual shall be submitted

C. Other Requirements or Special Conditions4. **Operation and Maintenance Manual Requirement** (continued)

for approval to the DEQ Regional Office **within 90 days** of the effective date of this permit (**April 26, 2009**) or with the above required notification. The permittee will maintain an accurate, approved operation and maintenance manual for the treatment works. This manual shall include, but not necessarily be limited to, the following items, as appropriate:

- a. Techniques to be employed in the collection, preservation, and analysis of effluent samples (and sludge samples if sludge analyses are required);
- b. Discussion of Best Management Practices, if applicable;
- c. Treatment works design, treatment works operation, routine preventative maintenance of units within the treatment system, critical spare parts inventory and record keeping;
- d. Procedures for handling, storing, and disposing of all wastes, fluids, and pollutants that will prevent these materials from reaching state waters.

Any changes in the practices and procedures followed by the permittee shall be documented and submitted for staff approval within 90 days of the effective date of the changes. Upon approval of the submitted manual changes, the revised manual becomes an enforceable part of the permit.

Noncompliance with the O & M Manual shall be deemed a violation of the permit.

5. **Licensed Operator Requirement** - The permittee shall employ or contract at least one **Class II** licensed wastewater works operator for this facility. The license shall be issued in accordance with Title 54.1 of the Code of Virginia and the regulations of the Board for Waterworks and Wastewater Works Operators. The permittee shall notify the Department in writing whenever he is not complying, or has grounds for anticipating he will not comply with this requirement. The notification shall include a statement of reasons and a prompt schedule for achieving compliance.
6. **Reliability Class** - The permitted treatment works shall meet **Reliability Class II**.
7. **Sludge Reopener** - The Board may promptly modify or revoke and reissue this permit if any applicable standard for sewage sludge use or disposal promulgated under Section 405(d) of the Clean Water Act is more stringent than any requirements for sludge use or disposal in this permit, or controls a pollutant or practice not limited in this permit.
8. **Compliance Reporting under Part I.A and B**

- a. The quantification levels (QL) shall be as follows:

<u>Effluent Characteristic</u>	<u>Quantification Level</u>	<u>Effluent Characteristic</u>	<u>Quantification Level</u>
BOD ₅	5.0 mg/L	Copper, total recoverable	10 µg/l
Total Suspended Solids	1.0 mg/L	Nickel, total recoverable	3.47 µg/l
Chlorine	0.10 mg/L	Zinc, total recoverable	21.5 µg/l
Ammonia as N	0.2 mg/l		

- b. Reporting

Monthly Average - Compliance with the monthly average limitations and/or reporting requirements for the parameters listed in Part I A and B shall be determined as follows: All concentration data below the QL listed above shall be treated as zero. All concentration data equal to or above the QL listed in a. above shall be treated as it is reported. An arithmetic average shall be calculated using all reported data for the month, including the defined zeros. This arithmetic average shall be reported on the Discharge Monitoring Report (DMR) as calculated. If all data are below the QL, then the average shall be reported as "<QL". If reporting for quantity is required on the DMR and the calculated concentration is <QL, then report "<QL" for the quantity. Otherwise use the concentration data to determine the quantity.

C. Other Requirements or Special Conditions**8. Compliance Reporting under Part I.A and B (continued)**

Weekly Average - Compliance with the weekly average limitations and/or reporting requirements for the parameters listed in Part I A and B shall be determined as follows: All concentration data below the QL listed in a. above shall be treated as zero. All concentration data equal to or above the QL shall be treated as reported. An arithmetic average shall be calculated using all reported data, including the defined zeros, collected within each complete calendar week and entirely contained within the reporting month. The maximum value of the weekly averages thus determined shall be reported on the DMR. If all data are below the QL, then the average shall be reported as "<QL". If reporting for quantity is required on the DMR and the calculated concentration is <QL, then report "<QL" for the quantity. Otherwise use the concentration data to determine the quantity.

Daily Maximum - Compliance with the daily maximum limitations and/or reporting requirements for the parameters listed in Part I A and B shall be determined as follows: All concentration data below the QL listed in a. above shall be treated as zero. All concentration data equal to or above the QL shall be treated as reported. An arithmetic average shall be calculated using all reported data, including the defined zeros, collected within each day during the reporting month. The maximum value of these daily averages thus determined shall be reported on the DMR as the Daily Maximum. If all data are below the QL, then the average shall be reported as "<QL". If reporting for quantity is required on the DMR and the calculated concentration is <QL, then report "<QL" for the quantity. Otherwise use the calculated concentration.

- c. Any single datum required shall be reported as "<QL" if it is less than the QL listed in a. above. Otherwise, the numerical value shall be reported.
 - d. The permittee shall report at least the same number of significant digits as the permit limit for a given parameter. Regardless of the rounding convention used by the permittee (i.e., 5 always rounding up or to the nearest even number), the permittee shall use the convention consistently and shall ensure that consulting laboratories employed by the permittee use the same convention.
9. **Sludge Use and Disposal** - The permittee shall conduct all sewage sludge use or disposal activities in accordance with the Sludge Management Plan (SMP) approved with the issuance of this permit. Any proposed changes in the sewage sludge use or disposal practices or procedures followed by the permittee shall be documented and submitted for DEQ and Department of Health approval 90 days prior to the effective date of the change. Upon approval, the revised SMP becomes an enforceable part of the permit. The permit may be modified or alternatively revoked and reissued to incorporate limitations or conditions necessitated by substantive changes in sewage sludge use or disposal practices.
10. **Infiltration and Inflow (I/I) Reduction Plan** - The permittee shall continue work as scheduled on the I/I Corrective Action Plan (CAP) submitted as required in the previous permit. The schedule submitted with the I/I CAP is an enforceable part of this permit. An annual compliance reports shall be submitted to the DEQ Blue Ridge Regional Office by the **first, second, third and fourth anniversary dates** of the permit addressing the measures taken to reduce or minimize I/I.
11. **Total Maximum Daily Load (TMDL) Reopener** - This permit shall be modified or alternatively revoked and reissued if any approved wasteload allocation procedure, pursuant to Section 303(d) of the Clean Water Act, imposes wasteload allocations, limits or conditions on the facility that are not consistent with the permit requirements.

C. Other Requirements or Special Conditions

12. **Water Quality Criteria Monitoring** - The permittee shall monitor the effluent at outfall 001 for the substances noted in Attachment A, "Water Quality Criteria Monitoring" according to the indicated analysis number, quantification level, sample type and frequency. Monitoring shall be initiated after the start of the third year from the permit's effective date. Using **Attachment A** as the reporting form, the data shall be submitted with the next application for reissuance which is due at least 180 days prior to the expiration date of this permit due on **July 29, 2013**. Monitoring and analysis shall be conducted in accordance with 40 CFR Part 136 or alternative EPA approved methods. It is the responsibility of the permittee to ensure that proper QA/QC protocols are followed during the sample gathering and analytical procedures. The DEQ will use these data for making specific permit decisions in the future. This permit may be modified or, alternatively, revoked and reissued to incorporate limits for any of the substances listed in **Attachment A**.

CONDITIONS APPLICABLE TO ALL VPDES PERMITS

A. MONITORING

1. Samples and measurements taken as required by this permit shall be representative of the monitored activity.
2. Monitoring shall be conducted according to procedures approved under Title 40 Code of Federal Regulations Part 136 or alternative methods approved by the U.S. Environmental Protection Agency, unless other procedures have been specified in this permit.
3. The permittee shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals that will insure accuracy of measurements.

B. RECORDS

1. Records of monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurements;
 - b. The individual(s) who performed the sampling or measurements;
 - c. The date(s) and time(s) analyses were performed;
 - d. The individual(s) who performed the analyses;
 - e. The analytical techniques or methods used; and
 - f. The results of such analyses.
2. Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years, the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period of retention shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or regarding control standards applicable to the permittee, or as requested by the Board.

C. REPORTING MONITORING RESULTS

1. The permittee shall submit the results of the monitoring required by this permit not later than the 10th day of the month after monitoring takes place, unless another reporting schedule is specified elsewhere in this permit. Monitoring results shall be submitted to: Virginia Department of Environmental Quality Blue Ridge Regional Office - Roanoke, 3019 Peters Creek Road, Roanoke, VA 24019-2738.
2. Monitoring results shall be reported on a Discharge Monitoring Report (DMR) or on forms provided, approved or specified by the Department.
3. If the permittee monitors any pollutant specifically addressed by this permit more frequently than required by this permit using test procedures approved under Title 40 of the Code of Federal Regulations Part 136 or using other test procedures approved by the U.S. Environmental Protection Agency or using procedures specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or reporting form specified by the Department.
4. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.

D. DUTY TO PROVIDE INFORMATION

The permittee shall furnish to the Department, within a reasonable time, any information which the Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Board may require the permittee to furnish, upon request, such plans, specifications, and other pertinent information as may be necessary to determine the effect of the wastes from his discharge on the quality of state waters, or such other information as may be necessary to accomplish the purposes of the State Water Control Law. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.

E. COMPLIANCE SCHEDULE REPORTS

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

F. UNAUTHORIZED DISCHARGES

Except in compliance with this permit, or another permit issued by the Board, it shall be unlawful for any person to:

1. Discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances; or
2. Otherwise alter the physical, chemical or biological properties of such state waters and make them detrimental to the public health, or to animal or aquatic life, or to the use of such waters for domestic or industrial consumption, or for recreation, or for other uses.

G. REPORTS OF UNAUTHORIZED DISCHARGES

Any permittee who discharges or causes or allows a discharge of sewage, industrial waste, other wastes or any noxious or deleterious substance into or upon state waters in violation of Part II, Section F.; or who discharges or causes or allows a discharge that may reasonably be expected to enter state waters in violation of Part II, Section F., shall notify the Department of the discharge immediately upon discovery of the discharge, but in no case later than 24 hours after said discovery. A written report of the unauthorized discharge shall be submitted to the Department, within five days of discovery of the discharge. The written report shall contain:

1. A description of the nature and location of the discharge;
2. The cause of the discharge;
3. The date on which the discharge occurred;
4. The length of time that the discharge continued;
5. The volume of the discharge;
6. If the discharge is continuing, how long it is expected to continue;
7. If the discharge is continuing, what the expected total volume of the discharge will be; and
8. Any steps planned or taken to reduce, eliminate and prevent a recurrence of the present discharge or any future discharges not authorized by this permit.

Discharges reportable to the Department under the immediate reporting requirements of other regulations are exempted from this requirement.

H. REPORTS OF UNUSUAL OR EXTRAORDINARY DISCHARGES

If any unusual or extraordinary discharge including a bypass or upset should occur from a treatment works and the discharge enters or could be expected to enter state waters, the permittee shall promptly notify, in no case later than 24 hours, the Department by telephone after the discovery of the discharge. This notification shall provide all available details of the incident, including any adverse affects on aquatic life and the known number of fish killed. The permittee shall reduce the report to writing and shall submit it to the Department within five days of discovery of the discharge in accordance with Part II, Section I.2. Unusual and extraordinary discharges include but are not limited to any discharge resulting from:

1. Unusual spillage of materials resulting directly or indirectly from processing operations;
2. Breakdown of processing or accessory equipment;
3. Failure or taking out of service some or all of the treatment works; and
4. Flooding or other acts of nature.

I. REPORTS OF NONCOMPLIANCE

The permittee shall report any noncompliance which may adversely affect state waters or may endanger public health.

1. An oral report shall be provided within 24 hours from the time the permittee becomes aware of the circumstances. The following shall be included as information which shall be reported within 24 hours under this paragraph:
 - a. Any unanticipated bypass; and
 - b. Any upset which causes a discharge to surface waters.
2. A written report shall be submitted within 5 days and shall contain:
 - a. A description of the noncompliance and its cause;
 - b. The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and
 - c. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The Board may waive the written report on a case-by-case basis for reports of noncompliance under Part II, Section I. if the oral report has been received within 24 hours and no adverse impact on state waters has been reported.

3. The permittee shall report all instances of noncompliance not reported under Part II, Sections I.1. or 2., in writing, at the time the next monitoring reports are submitted. The reports shall contain the information listed in Part II, Section I.2.

NOTE: The immediate (within 24 hours) reports required in Part II, Sections G., H. and I. may be made to the Department's Regional Office at (540) 562-6700 (voice) or (540) 562-6725 (fax). For reports outside normal working hours, leave a message and this shall fulfill the immediate reporting requirement. For emergencies, the Virginia Department of Emergency Services maintains a 24 hour telephone service at 1-800-468-8892.

J. NOTICE OF PLANNED CHANGES

1. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
 - a. The permittee plans alteration or addition to any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:

J. NOTICE OF PLANNED CHANGES (continued)

- (1) After promulgation of standards of performance under Section 306 of Clean Water Act which are applicable to such source; or
 - (2) After proposal of standards of performance in accordance with Section 306 of Clean Water Act which are applicable to such source, but only if the standards are promulgated in accordance with Section 306 within 120 days of their proposal;
 - b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations nor to notification requirements specified elsewhere in this permit; or
 - c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
2. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

K. SIGNATORY REQUIREMENTS

1. Applications. All permit applications shall be signed as follows:
 - a. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
 - b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
 - c. For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a public agency includes: (i) The chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.
2. Reports, etc. All reports required by permits, and other information requested by the Board shall be signed by a person described in Part II, Section K.1., or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described in Part II, Section K.1.;

K. SIGNATORY REQUIREMENTS (continued)

- b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and
 - c. The written authorization is submitted to the Department.
3. Changes to authorization. If an authorization under Part II, Section K.2. is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part II, Section K.2. shall be submitted to the Department prior to or together with any reports, or information to be signed by an authorized representative.
4. Certification. Any person signing a document under Parts II, Section K.1. or 2. shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

L. DUTY TO COMPLY

The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the State Water Control Law and the Clean Water Act, except that noncompliance with certain provisions of this permit may constitute a violation of the State Water Control Law but not the Clean Water Act. Permit noncompliance is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if this permit has not yet been modified to incorporate the requirement.

M. DUTY TO REAPPLY

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit. All permittees with a currently effective permit shall submit a new application at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Board. The Board shall not grant permission for applications to be submitted later than the expiration date of the existing permit.

N. EFFECT OF A PERMIT

This permit does not convey any property rights in either real or personal property or any exclusive privileges, nor does it authorize any injury to private property or invasion of personal rights, or any infringement of federal, state or local law or regulations.

O. STATE LAW

Nothing in this permit shall be construed to preclude the institution of any legal action under, or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any other state law or regulation or under authority preserved by Section 510 of the Clean Water Act. Except as provided in permit conditions on "bypassing" (Part II, Section U.), and "upset" (Part II, Section V.) nothing in this permit shall be construed to relieve the permittee from civil and criminal penalties for noncompliance.

P. OIL AND HAZARDOUS SUBSTANCE LIABILITY

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Sections 62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law.

Q. PROPER OPERATION AND MAINTENANCE

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes effective plant performance, adequate funding, adequate staffing, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of this permit.

R. DISPOSAL OF SOLIDS OR SLUDGES

Solids, sludges or other pollutants removed in the course of treatment or management of pollutants shall be disposed of in a manner so as to prevent any pollutant from such materials from entering state waters.

S. DUTY TO MITIGATE

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

T. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

U. BYPASS

1. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Part II, Sections U.2. and U.3.
2. Notice
 - a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, prior notice shall be submitted, if possible at least ten days before the date of the bypass.
 - b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Part II, Section I.

U. BYPASS (continued)

3. Prohibition of bypass

- a. Bypass is prohibited, and the Board may take enforcement action against a permittee for bypass, unless:
 - (1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - (3) The permittee submitted notices as required under Part II, Section U.2.
- b. The Board may approve an anticipated bypass, after considering its adverse effects, if the Board determines that it will meet the three conditions listed above in Part II, Section U.3.a.

V. UPSET

1. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of Part II, Section V.2. are met. A determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is not a final administrative action subject to judicial review.
2. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a. An upset occurred and that the permittee can identify the cause(s) of the upset;
 - b. The permitted facility was at the time being properly operated;
 - c. The permittee submitted notice of the upset as required in Part II, Section I.; and
 - d. The permittee complied with any remedial measures required under Part II, Section S.
3. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

W. INSPECTION AND ENTRY

The permittee shall allow the Director, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act and the State Water Control Law, any substances or parameters at any location.

For purposes of this section, the time for inspection shall be deemed reasonable during regular business hours, and whenever the facility is discharging. Nothing contained herein shall make an inspection unreasonable during an emergency.

X. PERMIT ACTIONS

Permits may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Y. TRANSFER OF PERMITS

1. Permits are not transferable to any person except after notice to the Department. Except as provided in Part II, Section Y.2., a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued, or a minor modification made, to identify the new permittee and incorporate such other requirements as may be necessary under the State Water Control Law and the Clean Water Act.
2. As an alternative to transfers under Part II, Section Y.1., this permit may be automatically transferred to a new permittee if:
 - a. The current permittee notifies the Department at least 30 days in advance of the proposed transfer of the title to the facility or property;
 - b. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
 - c. The Board does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in Part II, Section Y.2.b.

Z. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY MONITORING
ATTACHMENT A

FACILITY NAME: Ferrum STP (Ferrum Water & Sewage Authority)
ADDRESS: P. O. Box 40, Ferrum, VA 24088
OUTFALL NO.: 001

CASRN#	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL ⁽¹⁾	REPORTING RESULTS	SAMPLE TYPE ⁽²⁾	SAMPLE FREQUENCY
METALS						
7440-36-0	Antimony, dissolved	(3)	870		G or C	1/5 YR
7440-38-2	Arsenic, dissolved	(3)	37		G or C	1/5 YR
7440-43-9	Cadmium, dissolved	(3)	0.29		G or C	1/5 YR
16065-83-1	Chromium III, dissolved ⁽⁸⁾	(3)	14		G or C	1/5 YR
18540-29-9	Chromium VI, dissolved ⁽⁸⁾	(3)	2.5		G or C	1/5 YR
7440-50-8	Copper, dissolved	(3)	1.8		G or C	1/5 YR
7439-92-1	Lead, dissolved	(3)	2.3		G or C	1/5 YR
7439-97-6	Mercury, dissolved	(3)	0.001		G or C	1/5 YR
7440-02-0	Nickel, dissolved	(3)	4.0		G or C	1/5 YR
7782-49-2	Selenium, dissolved	(3)	1.6		G or C	1/5 YR
7440-22-4	Silver, dissolved	(3)	0.38		G or C	1/5 YR
7440-28-0	Thallium, dissolved	(4)	(5)		G or C	1/5 YR
7440-66-6	Zinc, dissolved	(3)	17		G or C	1/5 YR
PESTICIDES/PCB'S						
309-00-2	Aldrin	608	0.05		G or SC	1/5 YR
57-74-9	Chlordane	608	0.2		G or SC	1/5 YR
2921-88-2	Chlorpyrifos (synonym = Dursban)	622	(5)		G or SC	1/5 YR
72-54-8	DDD	608	0.1		G or SC	1/5 YR
72-55-9	DDE	608	0.1		G or SC	1/5 YR
50-29-3	DDT	608	0.1		G or SC	1/5 YR
8065-48-3	Demeton	(4)	(5)		G or SC	1/5 YR
60-57-1	Dieldrin	608	0.1		G or SC	1/5 YR
959-98-8	Alpha-Endosulfan	608	0.1		G or SC	1/5 YR
33213-65-9	Beta-Endosulfan	608	0.1		G or SC	1/5 YR
1031-07-8	Endosulfan Sulfate	608	0.1		G or SC	1/5 YR
72-20-8	Endrin	608	0.1		G or SC	1/5 YR
7421-93-4	Endrin Aldehyde	(4)	(5)		G or SC	1/5 YR
86-50-0	Guthion	622	(5)		G or SC	1/5 YR

DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY MONITORING
ATTACHMENT A

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ADDRESS: P. O. Box 40, Ferrum, VA 24088
OUTFALL NO.: 001

CASRN#	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL ⁽¹⁾	REPORTING RESULTS	SAMPLE TYPE ⁽²⁾	SAMPLE FREQUENCY
76-44-8	Heptachlor	608	0.05		G or SC	1/5 YR
1024-57-3	Heptachlor Epoxide	(4)	(5)		G or SC	1/5 YR
319-84-6	Hexachlorocyclohexane Alpha-BHC	608	(5)		G or SC	1/5 YR
319-85-7	Hexachlorocyclohexane Beta-BHC	608	(5)		G or SC	1/5 YR
58-89-9	Hexachlorocyclohexane Gamma-BHC or Lindane	608	(5)		G or SC	1/5 YR
143-50-0	Kepone	(9)	(5)		G or SC	1/5 YR
121-75-5	Malathion	(4)	(5)		G or SC	1/5 YR
72-43-5	Methoxychlor	(4)	(5)		G or SC	1/5 YR
2385-85-5	Mirex	(4)	(5)		G or SC	1/5 YR
56-38-2	Parathion	(4)	(5)		G or SC	1/5 YR
11096-82-5	PCB 1260	608	1.0		G or SC	1/5 YR
11097-69-1	PCB 1254	608	1.0		G or SC	1/5 YR
12672-29-6	PCB 1248	608	1.0		G or SC	1/5 YR
53469-21-9	PCB 1242	608	1.0		G or SC	1/5 YR
11141-16-5	PCB 1232	608	1.0		G or SC	1/5 YR
11104-28-2	PCB 1221	608	1.0		G or SC	1/5 YR
12674-11-2	PCB 1016	608	1.0		G or SC	1/5 YR
1336-36-3	PCB Total	608	7.0		G or SC	1/5 YR
8001-35-2	Toxaphene	608	5.0		G or SC	1/5 YR
BASE NEUTRAL EXTRACTABLES						
83-32-9	Acenaphthene	625	10.0		G or SC	1/5 YR
120-12-7	Anthracene	625	10.0		G or SC	1/5 YR
92-87-5	Benzidine	(4)	(5)		G or SC	1/5 YR
56-55-3	Benzo (a) anthracene	625	10.0		G or SC	1/5 YR
205-99-2	Benzo (b) fluoranthene	625	10.0		G or SC	1/5 YR
207-08-9	Benzo (k) fluoranthene	625	10.0		G or SC	1/5 YR
50-32-8	Benzo (a) pyrene	625	10.0		G or SC	1/5 YR
111-44-4	Bis 2-Chloroethyl Ether	(4)	(5)		G or SC	1/5 YR
39638-32-9	Bis 2-Chloroisopropyl Ether	(4)	(5)		G or SC	1/5 YR

DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY MONITORING
ATTACHMENT A

FACILITY NAME: Ferrum STP (Ferrum Water & Sewage Authority)
ADDRESS: P. O. Box 40, Ferrum, VA 24088
OUTFALL NO.: 001

CASRN#	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL ⁽¹⁾	REPORTING RESULTS	SAMPLE TYPE ⁽²⁾	SAMPLE FREQUENCY
85-68-7	Butyl benzyl phthalate	625	10.0		G or SC	1/5 YR
91-58-7	2-Chloronaphthalene	(4)	(5)		G or SC	1/5 YR
218-01-9	Chrysene	625	10.0		G or SC	1/5 YR
53-70-3	Dibenz(a,h)anthracene	625	20.0		G or SC	1/5 YR
84-74-2	Dibutyl phthalate (synonym = Di-n-Butyl Phthalate)	625	10.0		G or SC	1/5 YR
95-50-1	1,2-Dichlorobenzene	624	10.0		G or SC	1/5 YR
541-73-1	1,3-Dichlorobenzene	624	10.0		G or SC	1/5 YR
106-46-7	1,4-Dichlorobenzene	624	10.0		G or SC	1/5 YR
91-94-1	3,3-Dichlorobenzidine	(4)	(5)		G or SC	1/5 YR
84-66-2	Diethyl phthalate	625	10.0		G or SC	1/5 YR
117-81-7	Di-2-Ethylhexyl Phthalate	625	10.0		G or SC	1/5 YR
131-11-3	Dimethyl phthalate	(4)	(5)		G or SC	1/5 YR
121-14-2	2,4-Dinitrotoluene	625	10.0		G or SC	1/5 YR
122-66-7	1,2-Diphenylhydrazine	(4)	(5)		G or SC	1/5 YR
206-44-0	Fluoranthene	625	10.0		G or SC	1/5 YR
86-73-7	Fluorene	625	10.0		G or SC	1/5 YR
118-74-1	Hexachlorobenzene	(4)	(5)		G or SC	1/5 YR
87-68-3	Hexachlorobutadiene	(4)	(5)		G or SC	1/5 YR
77-47-4	Hexachlorocyclopentadiene	(4)	(5)		G or SC	1/5 YR
67-72-1	Hexachloroethane	(4)	(5)		G or SC	1/5 YR
193-39-5	Indeno(1,2,3-cd)pyrene	625	20.0		G or SC	1/5 YR
78-59-1	Isophorone	625	10.0		G or SC	1/5 YR
98-95-3	Nitrobenzene	625	10.0		G or SC	1/5 YR
62-75-9	N-Nitrosodimethylamine	(4)	(5)		G or SC	1/5 YR
621-64-7	N-Nitrosodi-n-propylamine	(4)	(5)		G or SC	1/5 YR
86-30-6	N-Nitrosodiphenylamine	(4)	(5)		G or SC	1/5 YR
129-00-0	Pyrene	625	10.0		G or SC	1/5 YR
120-82-1	1,2,4-Trichlorobenzene	625	10.0		G or SC	1/5 YR

DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY MONITORING
ATTACHMENT A

FACILITY NAME: Ferrum STP (Ferrum Water & Sewage Authority)
ADDRESS: P. O. Box 40, Ferrum, VA 24088
OUTFALL NO.: 001

CASRN#	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL ⁽¹⁾	REPORTING RESULTS	SAMPLE TYPE ⁽²⁾	SAMPLE FREQUENCY
VOLATILES						
107-02-8	Acrolein	(4)	(5)		G	1/5 YR
107-13-1	Acrylonitrile	(4)	(5)		G	1/5 YR
71-43-2	Benzene	624	10.0		G	1/5 YR
75-25-2	Bromoform	624	10.0		G	1/5 YR
56-23-5	Carbon Tetrachloride	624	10.0		G	1/5 YR
108-90-7	Chlorobenzene (synonym = monochlorobenzene)	624	50.0		G	1/5 YR
124-48-1	Chlorodibromomethane	624	10.0		G	1/5 YR
67-66-3	Chloroform	624	10.0		G	1/5 YR
75-09-2	Dichloromethane (synonym = methylene chloride)	624	20.0		G	1/5 YR
75-27-4	Dichlorobromomethane	624	10.0		G	1/5 YR
107-06-2	1,2-Dichloroethane	624	10.0		G	1/5 YR
75-35-4	1,1-Dichloroethylene	624	10.0		G	1/5 YR
156-60-5	1,2-trans-dichloroethylene	(4)	(5)		G	1/5 YR
78-87-5	1,2-Dichloropropane	(4)	(5)		G	1/5 YR
542-75-6	1,3-Dichloropropene	(4)	(5)		G	1/5 YR
100-41-4	Ethylbenzene	624	10.0		G	1/5 YR
74-83-9	Methyl Bromide	(4)	(5)		G	1/5 YR
79-34-5	1,1,2,2-Tetrachloroethane	(4)	(5)		G	1/5 YR
127-18-4	Tetrachloroethylene	624	10.0		G	1/5 YR
10-88-3	Toluene	624	10.0		G	1/5 YR
79-00-5	1,1,2-Trichloroethane	(4)	(5)		G	1/5 YR
79-01-6	Trichloroethylene	624	10.0		G	1/5 YR
75-01-4	Vinyl Chloride	624	10.0		G	1/5 YR
RADIONUCLIDES						
	Strontium 90 (pCi/L)	(4)	(5)		G or C	1/5 YR
	Tritium (pCi/L)	(4)	(5)		G or C	1/5 YR
	Beta Particle & Photon Activity (mrem/yr)	(4)	(5)		G or C	1/5 YR
	Gross Alpha Particle Activity (pCi/L)	(4)	(5)		G or C	1/5 YR

DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY MONITORING
ATTACHMENT A

FACILITY NAME: Ferrum STP (Ferrum Water & Sewage Authority)
ADDRESS: P. O. Box 40, Ferrum, VA 24088
OUTFALL NO.: 001

CASRN#	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL ⁽¹⁾	REPORTING RESULTS	SAMPLE TYPE ⁽²⁾	SAMPLE FREQUENCY
ACID EXTRACTABLES⁽⁶⁾						
95-57-8	2-Chlorophenol	625	10.0		G or SC	1/5 YR
120-83-2	2,4 Dichlorophenol	625	10.0		G or SC	1/5 YR
105-67-9	2,4 Dimethylphenol	625	10.0		G or SC	1/5 YR
51-28-5	2,4-Dinitrophenol	(4)	(5)		G or SC	1/5 YR
534-52-1	2-Methyl-4,6-Dinitrophenol	(4)	(5)		G or SC	1/5 YR
87-86-5	Pentachlorophenol	625	50.0		G or SC	1/5 YR
108-95-2	Phenol	625	10.0		G or SC	1/5 YR
88-06-2	2,4,6-Trichlorophenol	625	10.0		G or SC	1/5 YR
MISCELLANEOUS						
	Ammonia as NH3-N	350.1	200		C	1/5 YR
7782-50-5	Chlorine, Total Residual	(4)	100		G	1/5 YR
57-12-5	Cyanide, Total	(4)	10.0		G	1/5 YR
N/A	<i>E. coli</i> / <i>Enterococcus</i> (N/CML)	(4)	(5)		G	1/5 YR
7783-06-4	Hydrogen Sulfide	(4)	(5)		G or SC	1/5 YR
60-10-5	Tributyltin ⁽⁷⁾	NBSR 85-3295	(5)		G or C	1/5 YR

Name of Principal Exec. Officer or Authorized Agent/Title

Signature of Principal Officer or Authorized Agent/Date

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. Sec. 1001 and 33 U.S.C. Sec. 1319. (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 months and 5 years.)

DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY MONITORING
ATTACHMENT A

FACILITY NAME: Ferrum STP (Ferrum Water & Sewage Authority)
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FOOTNOTES:

- (1) Quantification level (QL) is defined as the lowest concentration used for the calibration of a measurement system when the calibration is in accordance with the procedures published for the required method.

The quantification levels indicated for the metals are actually Specific Target Values developed for this permit. The Specific Target Value is the approximate value that may initiate a wasteload allocation analysis. Target values are not wasteload allocations or effluent limitations. The Specific Target Values are subject to change based on additional information such as hardness data, receiving stream flow, and design flows.

Units for the quantification level are micrograms/liter unless otherwise specified.

Quality control and quality assurance information shall be submitted to document that the required quantification level has been attained.

- (2) Sample Type

G = Grab = An individual sample collected in less than 15 minutes. Substances specified with "grab" sample type shall only be collected as grabs. The permittee may analyze multiple grabs and report the average results provided that the individual grab results are also reported. For grab metals samples, the individual samples shall be filtered and preserved immediately upon collection.

C = Composite = An 8-hour composite unless otherwise specified. The composite shall be a combination of individual samples, taken proportional to flow, obtained at hourly or smaller time intervals. The individual samples may be of equal volume for flows that do not vary by +/- 10 percent over a 24-hour period.

SC = Special Composite = samples for base/neutral/acid compounds, PCBs, and pesticides must be collected as 4 individual grab samples taken proportional to flow at 6-hour intervals over the course of one day. The individual samples may be of equal volume for flows that do not vary by +/- 10 percent over a 24-hour period. Grab samples must be analyzed separately and the concentrations averaged. Alternately, grab samples may be collected in the field and composited in the laboratory if the compositing procedure produces results equivalent to results produced by arithmetic averaging of the results of analysis of individual grab samples.

- (3) A specific analytical method is not specified; however a target value for each metal has been established. An appropriate method to meet the target value shall be selected from the following list of EPA methods (or any approved method presented in 40 CFR Part 136). If the test result is less than the method QL, a "<[QL]" shall be reported where the actual analytical test QL is substituted for [QL].

<u>Metal</u>	<u>Analytical Method</u>
Antimony	1638; 1639
Arsenic	206.5; 1632
Chromium ⁽⁹⁾	1639
Cadmium	1637; 1638; 1639; 1640
Chromium VI	218.6; 1639
Copper	1638; 1640
Lead	1637; 1638; 1640
Mercury	245.7; 1631
Nickel	1638; 1639; 1640
Selenium	1638; 1639
Silver	1638
Zinc	1638; 1639

- (4) Any approved method presented in 40 CFR Part 136.
- (5) The QL is at the discretion of the permittee. For any substances addressed in 40 CFR Part 136, the permittee shall use one of the approved methods in 40 CFR Part 136.
- (6) Testing for phenol requires continuous extraction.
- (7) Analytical Methods: NBSR 85-3295 or DEQ's approved analysis for Tributyltin may also be used [See A Manual for the Analysis of Butyltins in Environmental Systems by the Virginia Institute of Marine Science, dated November 1996].
- (8) Both Chromium III and Chromium VI may be measured by the total chromium analysis. If the result of the total chromium analysis is less than or equal to the lesser of the Chromium III or Chromium VI method QL, the results for both Chromium III and Chromium VI can be reported as "<[QL]", where the actual analytical test QL is substituted for [QL].
- (9) The lab may use SW846 Method 8270D provided the lab has an Initial Demonstration of Capability, has passed a PT for Kepone, and meets the acceptance criteria for Kepone as given in Method 8270D